BBC National Orchestra of Wales

Cerddorfa Genedlaethol Gymreig y BBC

BBC National Orchestra of Wales

Guide to Composing for Wind Quintet

Part One: Guide to the Individual Instruments

How to use this guide

This guide has been written by Lenny Sayers, Principal Bass Clarinet of the BBC National Orchestra of Wales, composer and arranger, in consultation with his colleagues in the orchestra. It has been written to give composition students advice on how to write for the different instruments of the wind quintet and their doublings. It is written mostly from a performer's perspective and designed to help composers of all levels.

The 'comfortable' range of each instrument has been shown (in both written and sounding pitch in the case of transposing instruments), with the *possible* range shown in brackets. A professional player can easily negotiate the extreme range of their instruments, and in most cases it is even possible to play higher than the 'official' top notes, but as a rule it is advisable to stay within the 'comfortable' range most of the time.

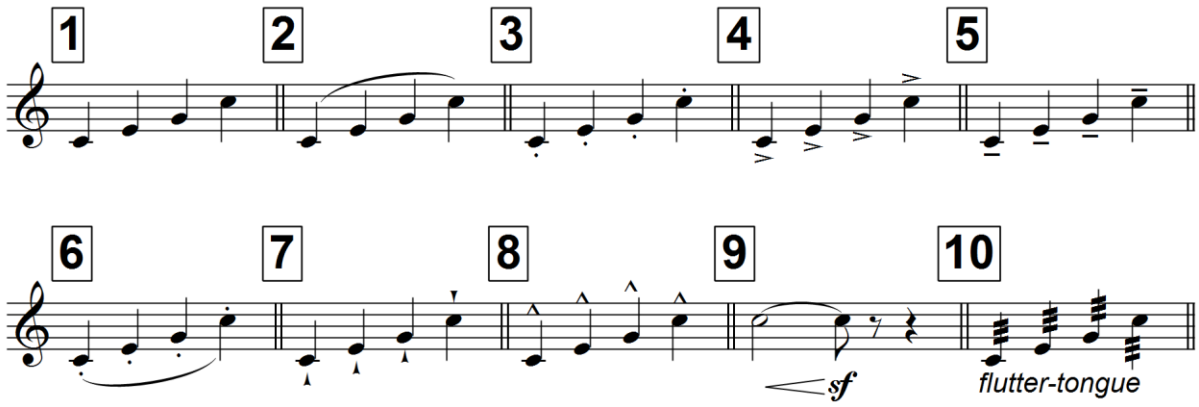
Where possible this guide explains things that are '*more difficult*' rather than '*impossible*' on the different instruments. We do not want to discourage composers from exploring all the sounds and colours at their disposal, but we do ask that you give consideration to the performer, who is after all only human!

Before using special techniques such as multi-phonics, please consult a player. Some techniques are very specialist, and may not be in the repertoire of an orchestral player from the BBC NOW!

Some general pointers on writing for wind instruments

Articulation

Examples of articulation for wind players



Wind players articulate by using their tongue to stop the sound. Common types of articulation are shown above, which would be interpreted thus:

1: If no articulation is written on the music wind players will default to tonguing every note but keeping the notes relatively long. This can also be referred to as 'legato tongued'.

2: Slurred: The first note is tongued and the rest played legato. Writing 'legato' under the music can be ambiguous as it is unclear whether the composer wishes the music to be played legato tongued or slurred.

3: *Staccato*: These will be tongued and short. Using the instruction 'staccato' underneath the music is perfectly adequate if long passages of staccato are required, cancelled by the instruction 'non-staccato'.

4: Accents: These notes will be played with a strong front to the note. Notes with a very strong accent should be marked sf or sfz. A performer will usually judge for themselves how strongly to play an accent based on its context.

5: *Tenuto*: These notes are tongued long with a slight emphasis. It can also be used to indicate that a note should be played full length – especially amongst a series of staccato notes.

6: *Mezzo-staccato*: This is quite an ambiguous marking, but quite common especially in 19th century music. It would usually be played detached, but not as detached as staccato.

7: *Staccatissimo*: Played as short and clipped as possible.

8: *Martelato*: A combination of accent and staccato.

9: A *sforzando* accent within a tie or slur: In this case the performer will create the accent with a sudden increase in air-flow, not with the tongue.

10: Flutter-tongue: Without otherwise indicating, and depending on the tempo of the music, example 10 could be interpreted as even demi-semiquavers. Writing 'flutter' or 'flz' will ensure that the musician will flutter and not separate the notes rhythmically. Please refer to the guide to different instruments before you use this effect as flutter-tonguing is not always effective, or possible, throughout the range. Flutter-tonguing is achieved by rolling an 'r' whilst blowing.

Breathing

Professional performers do not need you to mark breathing in for them in the music, but please be aware of the need for them to breathe! In a long legato passage with no break a performer will snatch a breath where possible, sometimes within a slur, or in extreme cases will miss some notes out. In the orchestra this would usually be covered, but in a wind quintet there is nowhere to hide! The following points are worth considering:

- The larger instruments generally use more air so cannot sustain a line for as long.
- Due to the resistance of the reed an oboist or clarinettist will generally be able to play longer than a flautist in one breath.
- Notes, and musical phrases, can be sustained for much longer in the lower dynamics due to the smaller amount of air needed.

Stamina

- Please bear in mind that wind players cannot play constantly for long stretches without a rest in the same way that string players can. Playing constantly without any break can be very exhausting, especially for horn players. Slow and sustained music is the most exhausting to play.

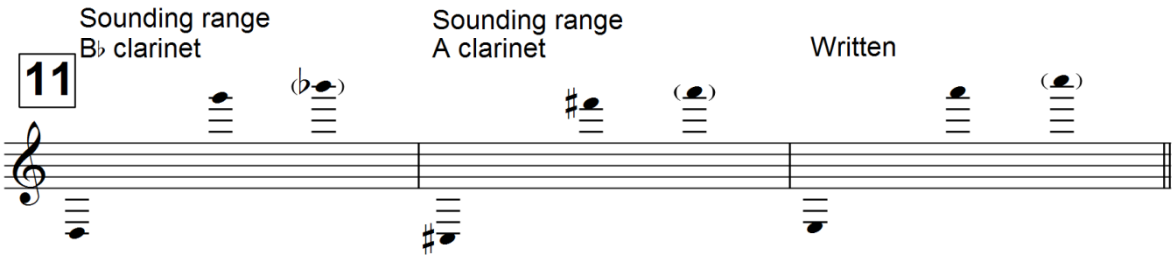
The Bb and A Clarinets

- The clarinet has a very large range and can play easily in all dynamics throughout the majority of its range.
- The 'soprano' clarinet is pitched in either Bb or A. The A clarinet is pitched a semitone lower than the Bb and has a slightly darker tone.
- When writing for wind quintet it is ok to use either the A or Bb clarinets, although most parts are in Bb. Nielsen's wind quintet uses the A clarinet very effectively.

Range and clef

The clarinet always uses the treble clef. Figure 11 shows the range of Bb and A clarinets:

Clarinet in B♭ or A



The different registers

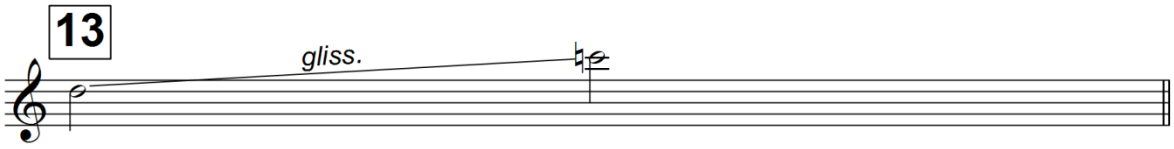
- The clarinet over-blows at a 12th, with the resulting 'missing' harmonics giving it its characteristic tone, and its range can be split into 3 'registers'.
- The clarinet can easily play in all dynamics throughout the majority of its range and is especially good at playing extremely quietly. This becomes more difficult (but not impossible) in the altissimo register.
- The **low register** (shown in figure 12), also known as the 'chalumeau' register after the instrument that pre-dated the clarinet, has a characteristic hollow, 'woody' sound. It can be used very effectively, such as in the 'Cat' solo in Prokofiev's 'Peter and the Wolf'.
- The **upper register**, or 'clarino' register, has a sweeter more 'singing' quality and is used for the majority of lyrical solos.

- The **altissimo register** has a much shriller quality to it. At the very top of the range it gets more difficult to negotiate tricky passages as the fingerings become less conventional. Often 'fake' or alternative fingerings are needed so precise tuning also becomes more difficult.

The 'break', and crossing the registers

- The 'break' is the point at which you cross between the registers. There are two 'breaks' on the clarinet.
- A professional player will have no problem negotiating the break, but there are certain things to be avoided if possible: Trills over the break are no problem, due to special trill keys, but larger interval tremolos become trickier.
- It is only when doing rapid tremolo that leaping between registers becomes difficult. At all other times it is possible to leap from the top to the bottom of the range with relative ease, especially when articulated.

Glissandos, flutter tonguing and other techniques

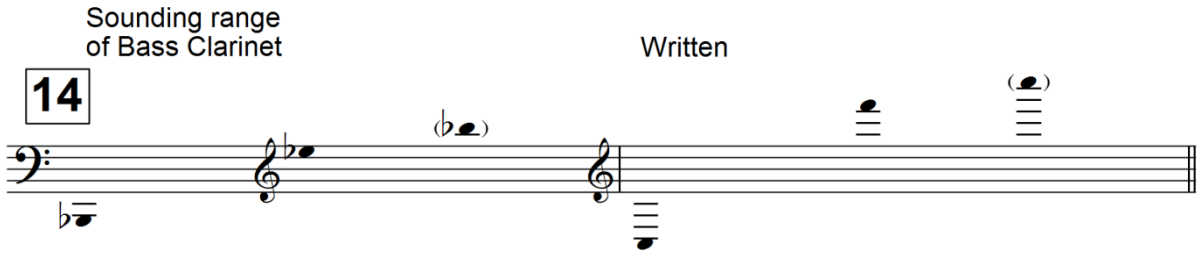


- Glissandos, as in the famous opening to Gershwin's 'Rhapsody in Blue' are only possible in the upper register and above. The range of Gershwin's glissando is shown in figure 13 (although it is possible to extend this glissando further upwards).
- It is possible to glissando both up and down (though easier to go up) and it is more effective the higher you go. Glissandi in the altissimo register are possible.
- It is **not** possible to glissando in the lower register - if a glissando was written here the player would have to play a quick chromatic scale. It is, however, possible to bend notes over very small intervals using the embouchure or fingers.
- Flutter-tonguing requires a large amount of air, so it is more effective in the *louder* dynamics. Quiet flutter-tonguing is easier in the low register.
- Flutter-tonguing becomes more difficult the higher you go, and is very difficult indeed in the altissimo register, so this should be avoided!

The Bass Clarinet (in Bb)

The bass clarinet is pitched an octave below the Bb clarinet, but the 'symphonic' bass clarinet extends down to a low sounding Bb (written C), giving it the same lower range as the bassoon.

Bass Clarinet



Clef

Even though many different systems of notation have been used for the bass clarinet in the past it is now conventional to **only** use the treble clef, making the written pitch a 9th above how it sounds. If using Sibelius select 'Bass Clarinet in Bb [Bass clef, treble transposed]'.

Registers

- The registers on the bass clarinet are exactly the same as on the clarinet, but the bass clarinet is often used most effectively in its lower register.
- The lower notes are very rich and strong, and it is very easy to play both loud and soft all the way to the bottom.
- The bass clarinet is as nimble as the clarinet, but chromatic passages become trickier when played at speed at the very bottom of the range (below the written E).
- Like the clarinet, the upper register has a sweeter tone-quality and can be very effective for lyrical passages.
- The altissimo register gets increasingly thin the higher you get and has less power than equivalent notes on the clarinet.
- Leaps between the registers are possible, but the difficulties encountered on the clarinet (described above) are even greater on the bass clarinet.
- The fingering of the bass clarinet is the same as the clarinet and so problems crossing the 'break' are the same.

Glissandos

These **do not** work on the bass clarinet as the instrument has not got open holes. It is possible to some extent in the altissimo register, however.

Doubling

- When asking a player to double between the clarinet and bass clarinet, or between clarinets in A and Bb, please allow enough time for the player to change instruments.

- The two soprano clarinets use the same mouthpiece so enough time is needed to swap it over between instruments.
- Quick changes between bass clarinet and clarinet, such as in Walton's 'Façade', are possible but this requires resting the bass clarinet against the knee whilst playing the clarinet, so it can be a bit awkward!

Other types of clarinet

E flat clarinet – this is rarely used in chamber music. It is pitched a fourth higher than the B flat clarinet and has a harsher and more penetrating sound. The comfortable written range of the instrument is not quite as high as the clarinet. The written G (sounding Bb) above the stave should be considered the highest note. Like the piccolo, the Eb clarinet can be a bit overwhelming in a chamber group if not used carefully!

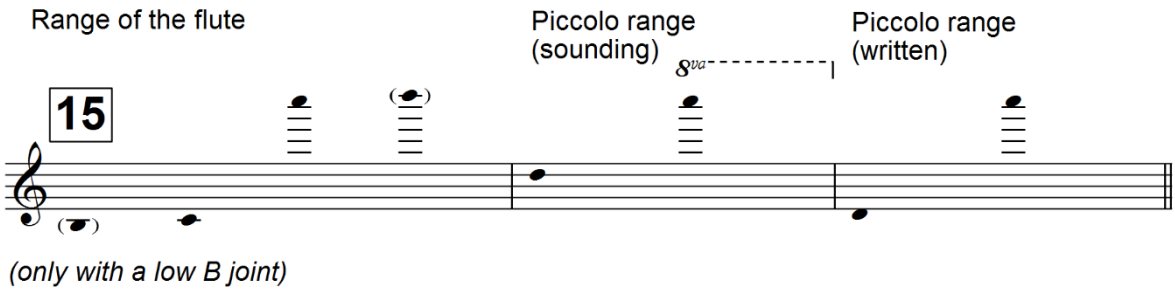
Bassett Horn – This has the same written range as a bass clarinet but is a fifth higher, pitched in F. The sound is more mellow and less powerful than the bass clarinet but should be treated similarly. The instrument is used very effectively in Mozart's Requiem and his Gran Partita serenade.

The Flute and Piccolo

Range and notation

The range of the flute is shown in figure 15:

Flute and Piccolo



- The flute and piccolo are pitched in C and use the treble clef.
- The flute can actually play higher than the D shown here, but if a composer wants higher pitches it would be more effective to use the piccolo.
- It is possible to play a low B with a special joint, but it should not be assumed that a player possesses this. If writing a low B, please provide an alternative in case the player cannot play the note.
- It is often assumed that the piccolo's range is *exactly* an octave above the flute. In actual fact the piccolo does not have a low C, so its range extends upwards from the D an octave above middle C (as shown in figure 15).
- The piccolo is notated an octave *lower* than it sounds.

Registers

The flute:

- The lower octave of the flute produces a very rich and warm sound, although it is more difficult to project the sound at the lower end of the instrument
- Better projection is achieved in the second and third octaves, and this is where most orchestral solos are written.
- As the pitch gets higher the sound of the flute becomes more shrill, but also much more powerful.
- It is possible to play quietly and delicately in the third octave, which can be very effective, although this becomes more difficult the higher the pitch gets.

The piccolo:

- The different octaves of the piccolo possess similar characteristics of that of the flute.
- The low range has a particularly beautiful tone quality.
- A common misconception is that it the piccolo should only be used to support loud music - it can also be very effective in the lower dynamics, although, like the flute, this becomes more difficult at the top of the range.
- Worth bearing in mind when using the piccolo in the wind quintet is that the very top of the range will easily overpower the rest of the ensemble!

Agility

The flute and piccolo are both very agile instruments and can easily leap between the registers. Octave leaps can be particularly effective.

Tonguing

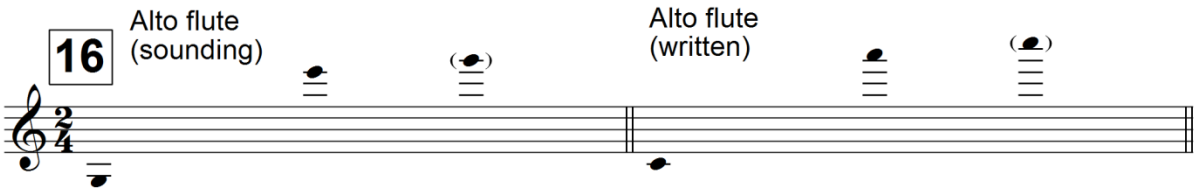
- Due to the way the flute is blown, players can typically tongue notes more rapidly than other woodwind players. Double and triple-tonguing are commonly used techniques.
- Flutter-tonguing is very effective, but at the top of the range it becomes more difficult especially in the lower dynamics.

Pitch bending

It is possible to bend the pitch of a note down by tipping the embouchure, especially in the middle register, but not nearly to the same extent as on the clarinet. Some players possess open-holed instruments which makes pitch bending easier, but this should not be assumed.

The Alto Flute

Alto Flute (in G)



Range

- The alto flute is pitched in G, sounding a perfect 4th below written.
- The written range is the same as on the flute, but the higher notes are more difficult to achieve than the equivalent notes on the flute.

Registers

- The alto flute is used most effectively in the low register, which produces a very warm and rich sound.
- It is not generally as loud as the flute or piccolo and the sound does not project as well.
- The higher register is not as powerful or rich as the equivalent notes on the flute.

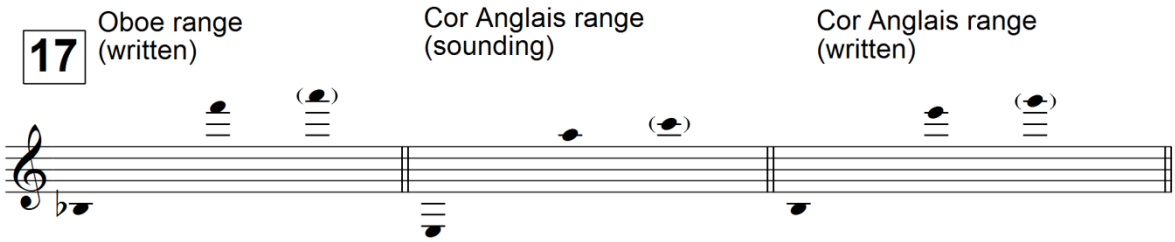
Doubling

Swapping between piccolo, flute and alto flute can be done relatively quickly, but a practical amount of time should be allowed to put one instrument down and pick the other up!

The Oboe and Cor Anglais

The range of the oboe and the cor anglais is shown in figure 17:

Oboe and Cor Anglais



Range and notation

- The oboe is pitched in C and uses the treble clef.
- The cor anglais (or English horn) also uses the treble clef and is pitched in F, sounding a perfect fifth lower than written.
- The lowest note on the cor anglais is a written B natural as, unlike the oboe, it does not possess a low Bb.
- With a special extension it is possible to get a written Bb on the cor anglais, but this renders the B impossible as it replaces the B with a Bb. Possession of an extension should not be assumed, and if the pitch is required an alternative should be provided in the part.

Registers

- The lower octave projects very well and produces a very rich tone.
- It is easy to play loud in the low register, but at the very bottom playing quietly becomes more difficult.
- The second octave has a very sweet quality and projects very well.
- At the extreme upper range of the instrument the sound gets thinner and playing quietly becomes more difficult. Playing rapidly at this range also become more difficult as the fingerings are more complicated, especially on the cor anglais.
- Playing extremely quietly on the oboe is not as easy as on the clarinet, but it is possible to achieve a 'muted' sound by putting a handkerchief inside the bell (using the instruction 'muted' or 'con sord.'). Please note, doing this for a low B or Bb would produce no sound at all!
- Jumps between registers are relatively easy, especially when articulated.

Tonguing

- The double-reed instruments are very effective at playing very short and light.
- Double-tonguing and triple-tonguing is possible on the oboe, though not with quite the same ease as on the flute and it is more difficult in the lower register.
- Flutter-tonguing is possible although not as effective as on the flute or clarinet. It is more difficult at the extreme low and high range of the instrument.

Doubling

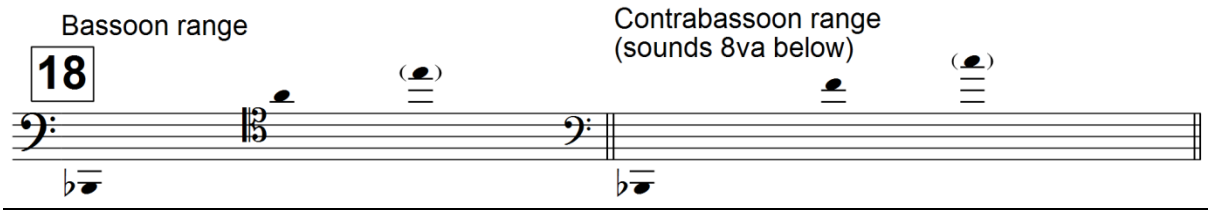
- The cor anglais and oboe use different sized reeds which, to stay responsive, need to be kept moist. Reeds that are not being used are usually kept in a small of water for this reason.
- When doubling between the oboe and the cor anglais enough time is needed to put one instrument down, pick up another and then put the reed on the instrument.

The Bassoon and Contrabassoon

Range and notation

The range of the bassoon and contrabassoon is shown in figure 18:

Bassoon and Contrabassoon



- Both the bassoon and contrabassoon are pitched in C, with the contrabassoon sounding an octave lower than written.
- On the bassoon most of the time the bass clef is used, with the tenor clef used for the higher range. The treble clef is **never** used.
- Frequent switching between clefs in the part can be confusing. Generally speaking, if a passage mostly sits above middle C the tenor clef should be used to avoid too many ledger-lines, whereas if most of the notes sit lower than this the bass clef would be clearer.
- The contrabassoon **only** uses the bass clef (**never** the tenor clef).
- On the bassoon it is possible, with an extension, to play a low A (such as in the end of Nielsen's Wind Quintet), although this would make low Bb impossible to play.

Registers

- Similarly to the cello, the bassoon is very effective and powerful in its lower and middle registers.
- The 3rd octave has a very sweet and expressive quality.
- Similarly to on the oboe it is easy to play loudly in the low register, but playing quietly becomes more difficult in the very lowest notes.
- The contrabassoon is most effective in its low register - the high register is typically weaker than the equivalent notes on the bassoon.
- Leaps between the registers are, on the whole, relatively easy to accomplish. Octave leaps can be particularly effective.

Tonguing

- Double tonguing is a possibility on the bassoon, but not at the extremes of the instrument.
- Flutter-tonguing is possible on the bassoon, but it is not as effective as on the clarinet or flute. It is easier in the higher registers.

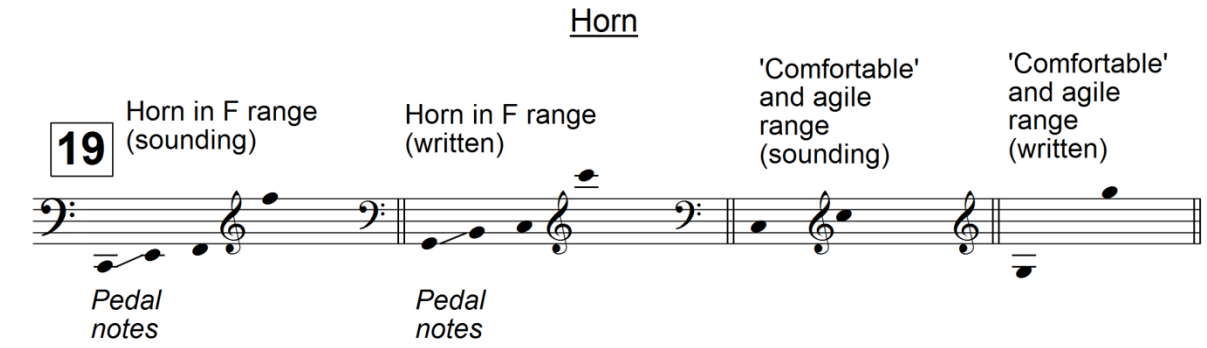
Doubling

This involves the same issue to do with the reed as doubling between oboe and cor anglais, but even more time is needed in order to swap between bassoon and contrabassoon!

The Horn

Range and Notation

The range of the horn is shown in figure 19:

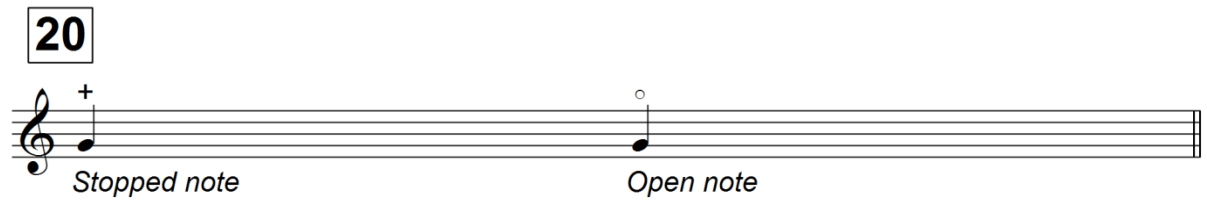


- The horn is pitched in F, sounding a perfect fifth below how it is written.
- The notes below the F an octave and a fifth below middle C are pedal notes, below its normal agile range.
- What a player would define as 'comfortable' really depends on the individual. In the orchestra horn players are split between low players and high players – a low specialist will be able to negotiate the very lowest range much better than a high specialist, and vice versa.
- The 'comfortable' range shown in figure 18 is the best range to write within for the majority of players. It is also the range at which the instrument really 'sings'.
- Composers should not be discouraged from using the very lowest or highest notes of the range, but should bear in mind that frequent use can be tiring on the embouchure.
- Excessive use of long notes in the upper or lower range of the instrument is also extremely tiring to play.

Notation and clefs

- The horn uses both the bass clef and the treble clef.
- If most of the notes sit amongst the 'comfortable' range, the treble clef will be fine.
- If lower notes are needed the bass clef should be used in order to avoid too many ledger-lines.
- Modern notation is exactly a perfect fifth above the sounding pitch - some older traditions of notating 'basso' notes by putting the bass clef notes down an octave is **not** used in modern music.

Stopped notes



- 'Stopped' notes have a characteristic brassy sound. They are notated with a + sign above the note, as shown in figure 20.
- Stopping a note raises the pitch by a semitone but it is the **player's** responsibility to make the necessary transposition.
- An 'o' sign can be used to denote 'open' or un-stopped notes, but is only necessary if it needs to be made clear to the player (if there are non-stopped notes amongst stopped notes, for instance).
- Stopping notes is easier towards the upper range of the horn. As a rule, avoid stopped notes outside of the 'comfortable' range.

Mutes

- The horn does not have the same range of mutes as the trumpet. If 'muted' or 'con sord' is specified the player will use a *straight* mute.
- If using mutes please indicate where to take the mute out, and also allow enough or any time to put in or take out the mute (the mute must be twisted out of the bell and then placed on the floor – ideally silently…)
- Using the instruction 'open' indicates where the player should play without the mute.

Glissandi

- These are accomplished by slurring the natural harmonics together, such as is used to great effect in Stravinsky's the 'Rite of Spring'.
- Glissandi are only really possible in the higher register where the natural harmonics of the instrument are closer together.

Agility and leaps between registers

- The horn is capable of being very agile, although not generally to the same extent as the woodwind instruments in the wind quintet.
- Leaps between registers become more difficult in intervals of over an octave.
- The horn is perfectly capable of playing trills throughout the 'comfortable' range, but tremolos using larger intervals are very tricky and not as effective as on woodwind instruments.

Part Two: Scoring, notation, and producing parts

This is by no means a comprehensive guide, but instead offers some advice to student composers based on my own experience both as a composer/ arranger and a performer.

Recommended listening

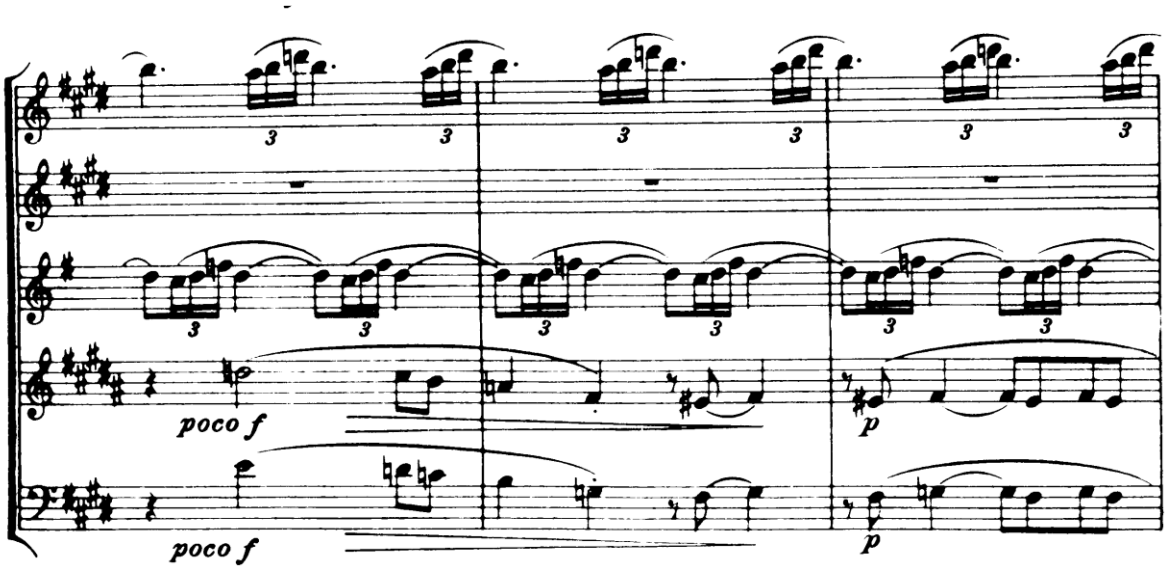
Before embarking on writing for wind quintet for the first time I would recommend listening to some established works. Below are a few examples of composers who have written effectively for the ensemble:

Arnold, Berio, Carter, Damase, Danzi, Françaix, Hindemith, Holst, Ibert, Joubert, Klughardt, Ligeti, Milhaud, Nielsen, Pärt, Paterson, Reicha, Taffanel,

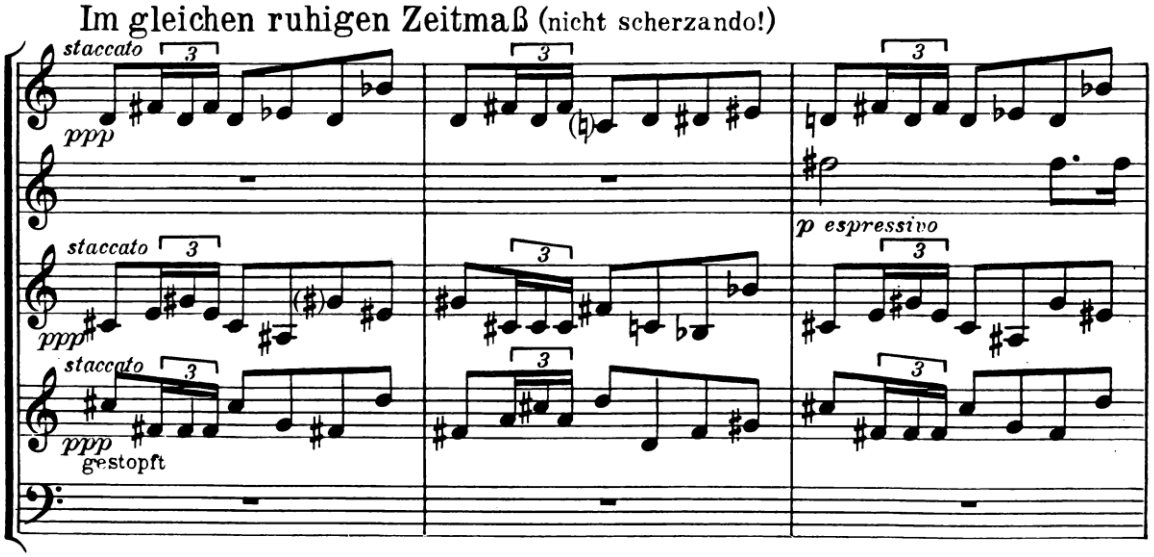
It would be wrong not to also mention the Schoenberg Wind Quintet because of its important place in the history of music. It is a very challenging work, however, and therefore rarely played.

Blending sounds

The wind quintet is a unique ensemble in that it is made up of instruments with very individual sounds. Instruments can be combined, or blended, to produce 'new' and interesting sonorities, in the same way that they are in an orchestra. Below, from Nielsen's Wind Quintet, is an effective combination of bassoon and horn (in 3rds), accompanied by flute and clarinet in octaves.



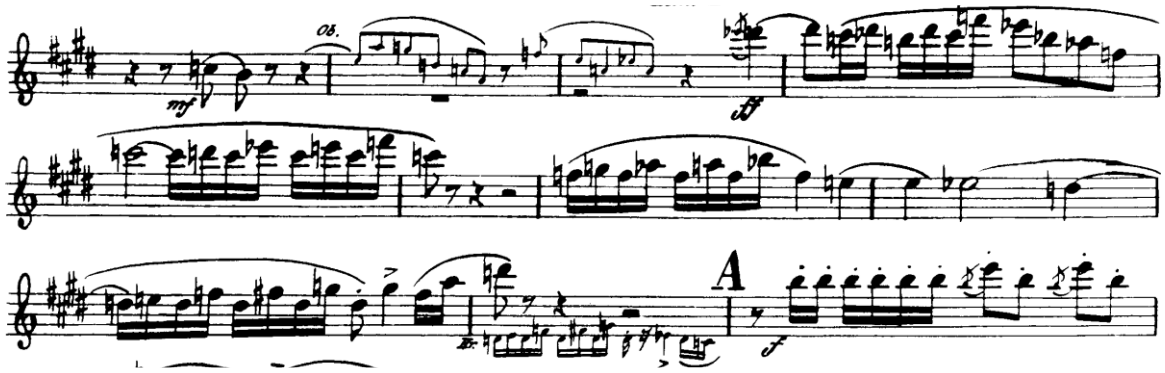
In this example, from Hindemith's 'Kleine Kammermusik', a muted horn, low clarinet and low flute are used very effectively to accompany an oboe melody.



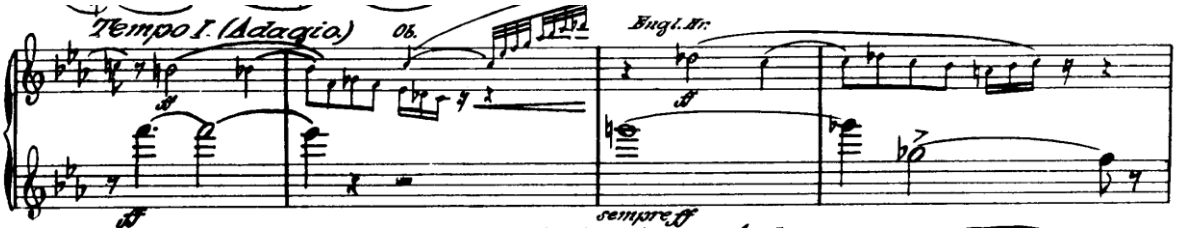
When combining instruments in unison, try to consider which sound will dominate. For instance, the combination of a low oboe and low clarinet or flute will contain more oboe sound. These instruments blend together very well in the middle of their range.

Cues:

These are very useful and prevent players from getting lost! Here's an example from the flute part of Nielsen's Quintet.



In the last movement of the same quintet the pulse is less obvious, so Nielsen provides an extra cue line in the parts for the players to follow.



TIP: *If using Sibelius you can create a cue by copying one part and pasting it into another using the shortcut Ctrl+Alt+Shift+V. This automatically creates a cue that will not playback and will be hidden in the score but visible in the parts.*

Parts:

- Remember to think about **page turns** when producing parts.
- Avoid using a stave size that is too small. I recommend 6.5mm-7mm.
- Try to avoid having more than 10 lines on a page of A4, and spread the lines out evenly.
- Proof-read your parts and look for bars that are crushed together, or words over the top of notes. Use Ctrl+shift+N to reset note spacing on Sibelius. Ctrl+shift+P will reset object positions (dynamics etc). Another common mistake is a dynamic attached to the wrong part. When the parts are extracted the dynamic marking appears in mid-air above the stave (on the part below the one you intended!)

Notation:

Professional musicians are very good readers, but poor notation can cause doubt or confusion and therefore result in inaccurate performances. Professionals have been trained to read conventional notation based around scales and arpeggios, therefore it is important that the notes are correctly spelt using 'natural' intervals (for instance, a B# to Fb is not as easy to process as a C to an E), and the rhythms are grouped so that the beats of the bar can be seen clearly. Following the rules set out by Eric Taylor in the AB Guide to Music Theory is a good starting point.

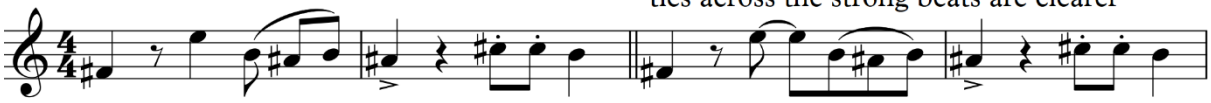
The following pages contain examples of poor notation (many from real examples seen in BBCNOW), with a 'corrected' version that would be more helpful for the performer.

Common errors are:

- Writing rhythms that cross the 'strong' beats of the bar without using ties.
- Incorrect groupings of notes and rests.
- Inconsistently spelt notes.
- Use of E#, B#, double flats and sharps as a result of transposition. In Sibelius u*se the 'return' key to re-spell the notes to their enharmonic equivalent.*
- Use of key signatures in transposed parts in atonal music. *Add an 'atonal' key signature to the start of the score to avoid this.*
- Writing complicated rhythms that could be simplified.
- Grouping irregular beats together inconsistently between the parts resulting in ensemble problems.
- Writing confusing clef changes.

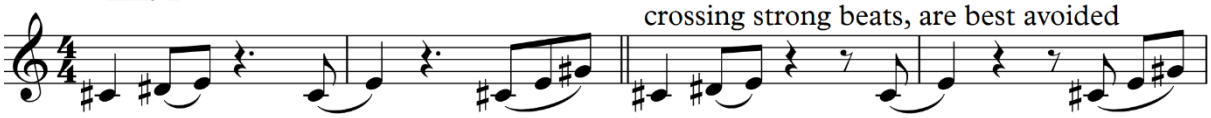
Ex. 1

ties across the strong beats are clearer

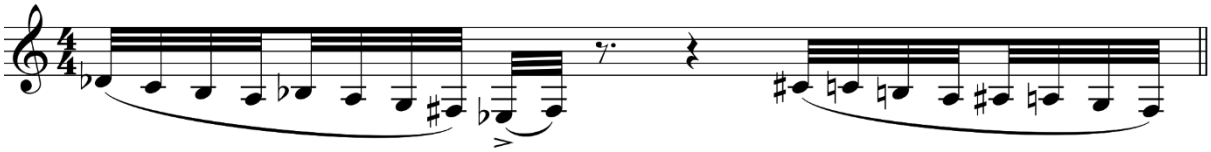


Ex. 2

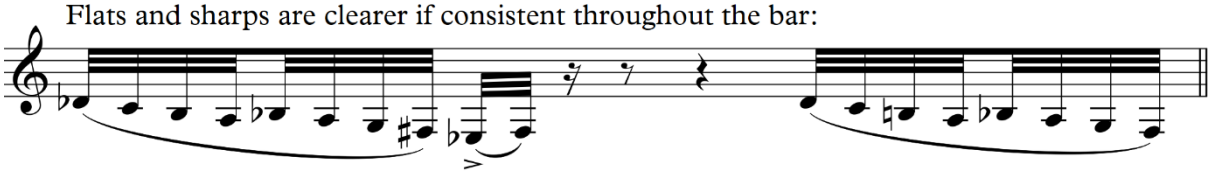
In simple time dotted rests, especially crossing strong beats, are best avoided



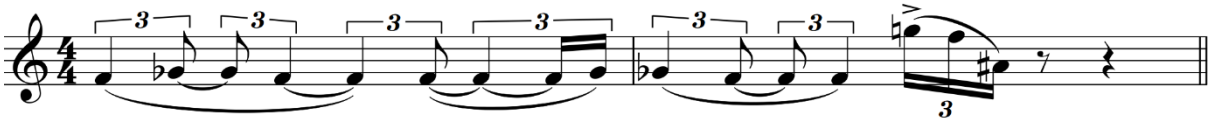
Ex. 3



Flats and sharps are clearer if consistent throughout the bar:

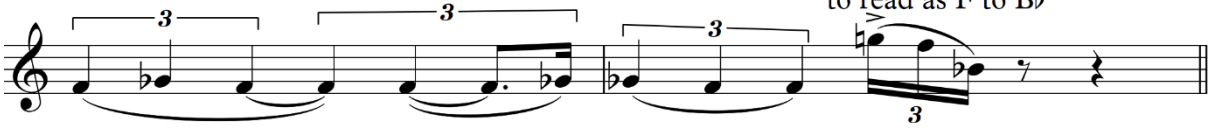


Ex. 4



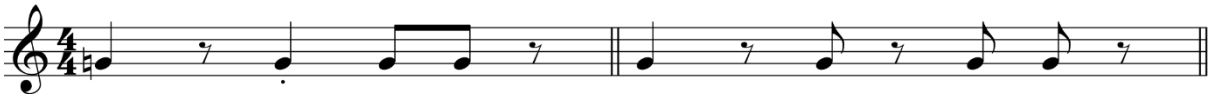
This rhythm is exactly the same and easier to read

The perfect 5th F to A♯ is not as easy an interval to read as F to B♭



Ex. 5

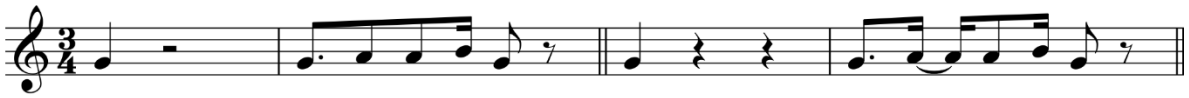
This is exactly the same rhythm, but the 4 beats of the bar are more obvious, therefore it is easier to read



Ex. 5

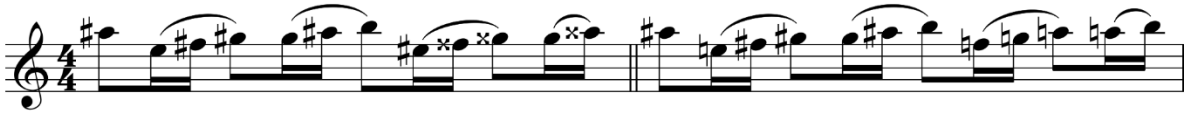
Minim rests should be avoided in 3/4

This rhythm, using ties, is much clearer



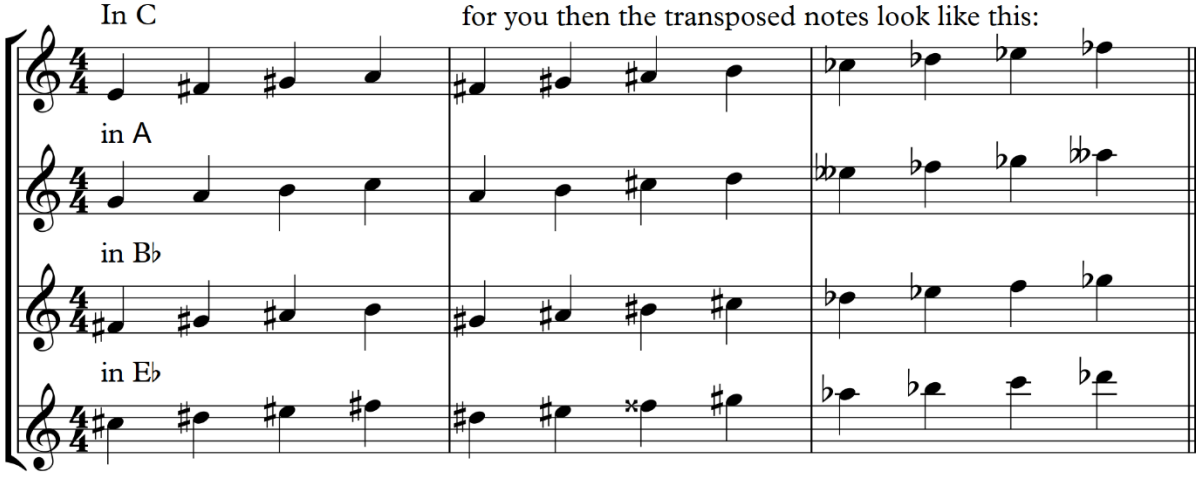
Ex. 6 (from Shostakovich…)

Double sharps make it difficult to read!

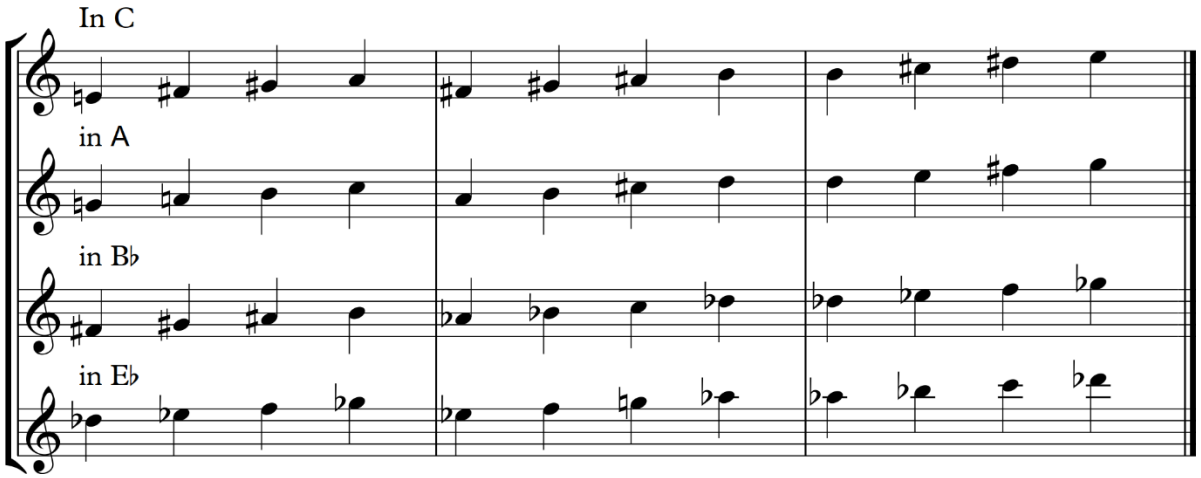


Ex. 6 - Transposition problems.

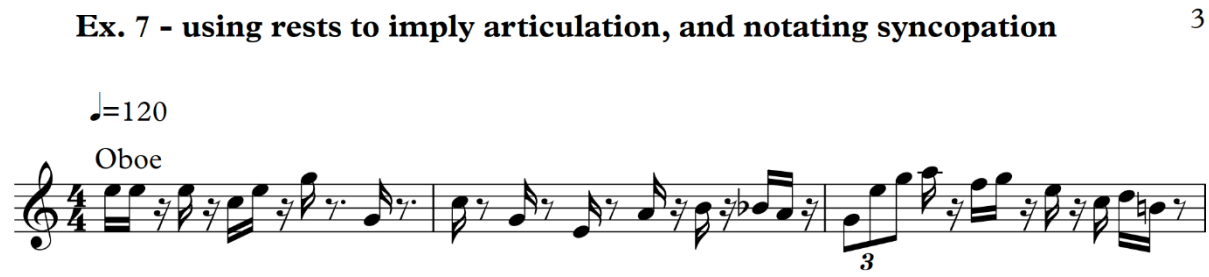
If you input notes in C and ask Sibelius to transpose it for you then the transposed notes look like this:



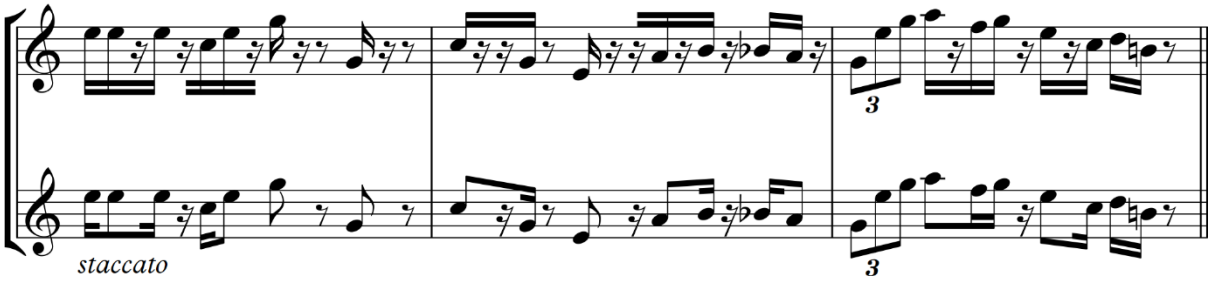
You can enharmonically 're-spell' the notes to make it much easier for the performer to read by using the 'enter' or 'return' key as a shortcut.



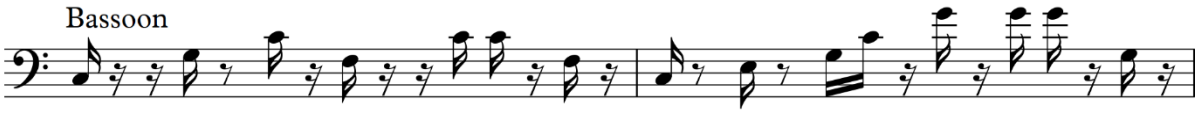
Example 7 is an arrangement of a well-known theme tune (available to download online) and is full of rhythmic notation errors. It is very difficult to see where the beats are, so very difficult to decipher the rhythm. The arranger was, presumably, relying on players knowing it by ear...



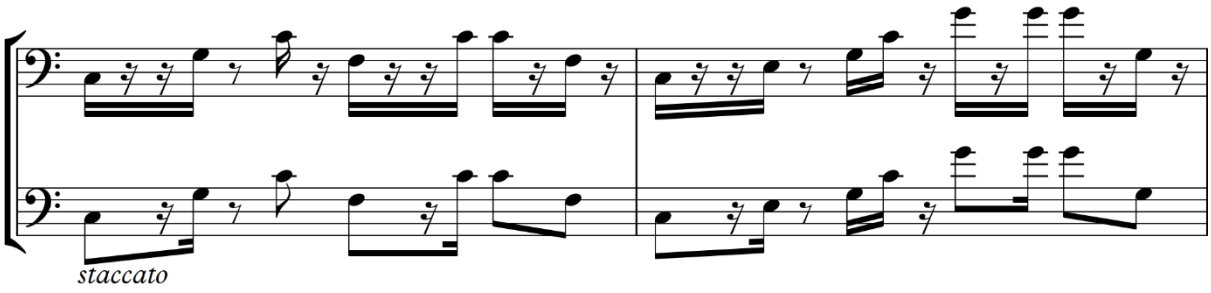
Here are two different versions of the same theme: The first example corrects the notation of the rests and uses beams to clear up some of the ambiguity, but it is still confusing to read, and likely to be played inaccurately. The second example uses fewer rests and doubles some of the note values, which makes it much clearer. The word 'staccato' is all the player needs to know to play every note short, so both versions would be *played* the same way.



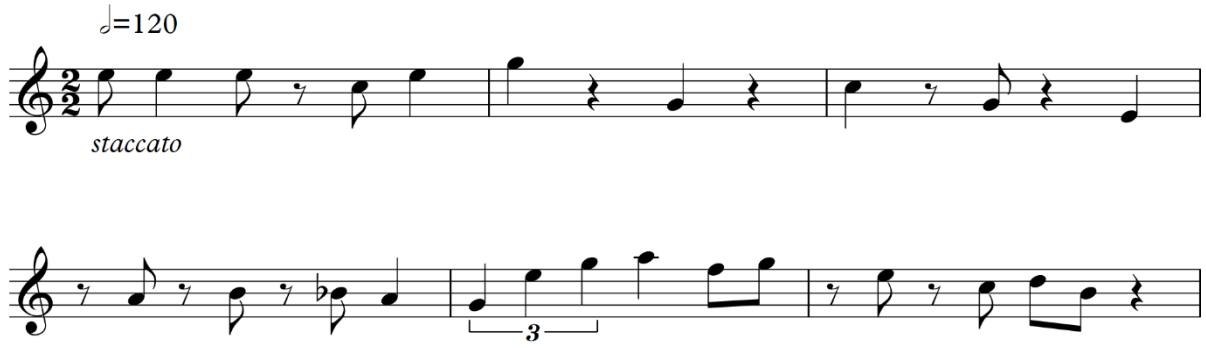
Here is the bass-line from the same arrangement in its original confusing notation:



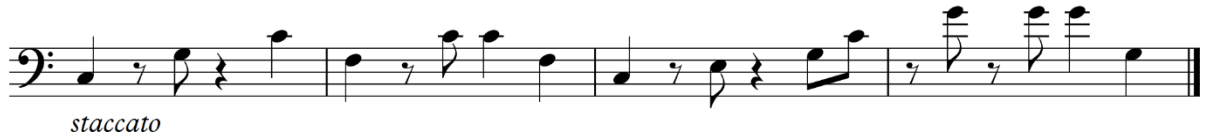
And, again, two corrected versions. The second version with longer note lengths and fewer rests is much clearer to read:



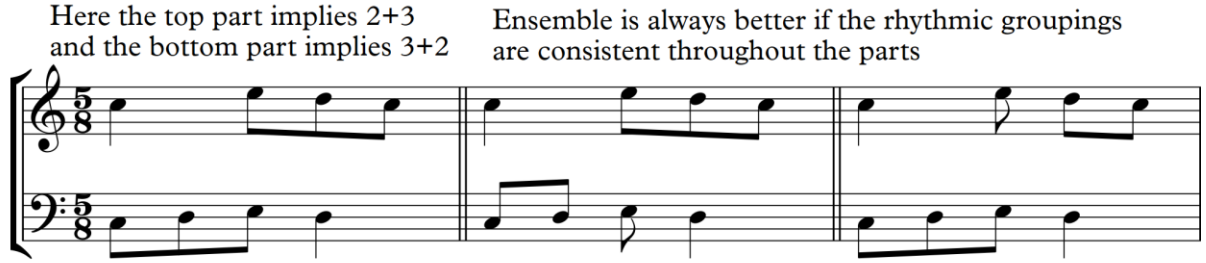
An even clearer way of notating the same theme is to double all the note values and put it in 2/2. This suddenly looks considerably less daunting to play! This would sound *exactly the same* as the previous versions, but because it is clearer and less fussy the player is more likely to play it correctly (and will be more relaxed whilst doing so!)

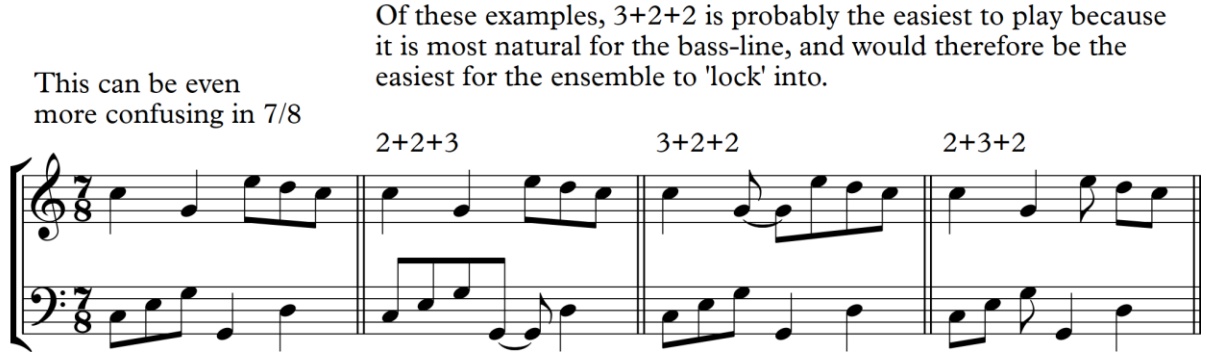


And the bass line now looks like this:



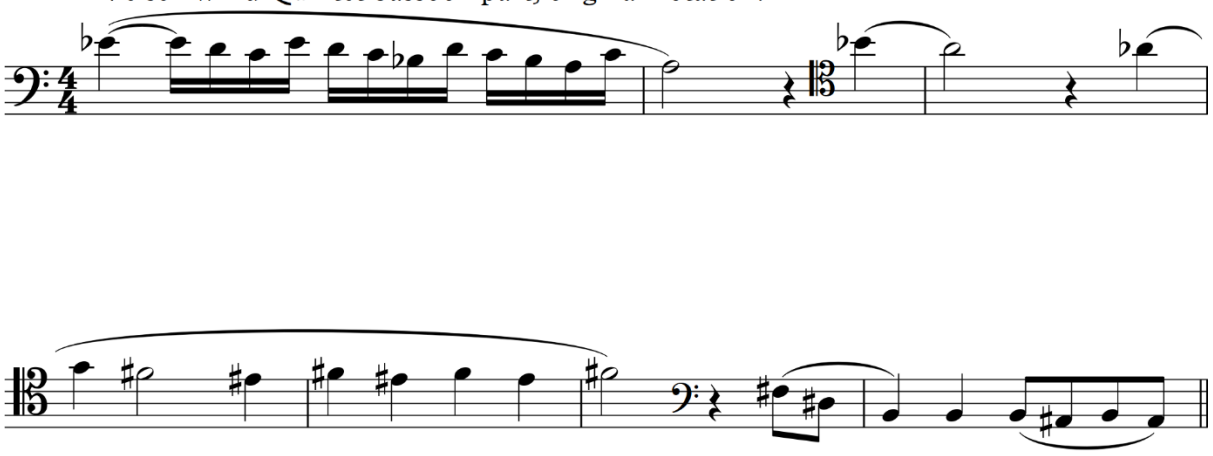
Ex. 8 - Notation of irregular time signatures



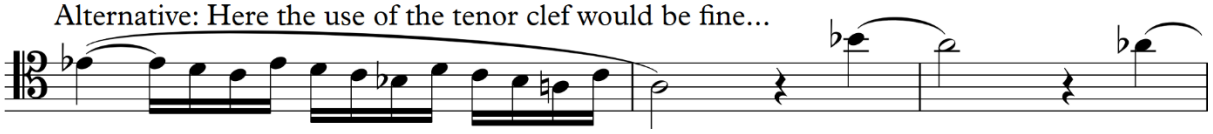


Ex. 9 - Clef changes, an illustration 5

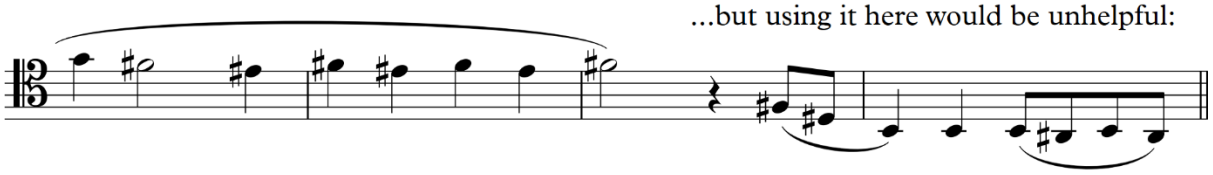
Nielsen Wind Quintet bassoon part, original notation:



Alternative: Here the use of the tenor clef would be fine...



...but using it here would be unhelpful:



Using the bass clef throughout would be ok, but using the tenor clef from the high B♭ avoids too many un-necessary ledger lines.